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Appl. No. 10/506,487
Amdt. Dated March 8, 2007
Reply to Office Action of December 8, 2006

REMARKS/ARGUMENTS

The Office Action of June 26, 2006 has been thoroughly studied. Accordingly, the changes presented herein for the application, considered together with the following remarks, are believed to be sufficient to place the application into condition for allowance.

By the present amendment, independent claim 1 has been changed to recite that R^4 in the general formula: $CH_2=CR^1-R^4-CR^1=CH_2$ is an alkylene group of C_2-C_6 .

Support for this limitation can be found at page 6, lines 13-24 of applicants' original specification where the method of introducing at least two alkenyl groups into a compound is discussed.

Entry of the changes to the claims is respectfully requested.

Claims 1-15 are pending in this application.

The Examiner has objected to the Amendment filed September 26, 2006 and rejected claims 1-15 on the basis that the original specification did not provide support for the recitation that " R^4 is an alkyl group of C_1-C_{20} , which may have at least one ether bond."

In response, claim 1 has been changed to avoid this recitation.

Claims 1-3, 5, 6, 8, 9, 14 and 15 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,463,704 to Farnam in view of U.S. Patent No. 5,986,014 to Kusakabe et al.

Claims 4 and 10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Farnam

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in view of Kusakabe et al. and U.S. Patent No. 6,444,740 to DeCato et al.

Claims 7 and 11-13 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Farnam in view of Kusakabe et al., DeCato et al. and U.S. Patent No. 5,684,110 to Kawamura.

For the reasons set forth below, it is submitted that all of the pending claims are allowable over the prior art relied upon by the Examiner and therefore, each of the outstanding rejections of the claims should properly be withdrawn.

Favorable reconsideration is earnestly solicited.

The Examiner has relied upon Farnam as teaching:

... a gasket (Abstract, I. 2), which comprises a cured product layer (Abs., I. 17 "cure the coating") and a metal plate or resin plate (col. 3, l. 26 "polymeric material", a resin), the cured product layer being provided on at least one surface of the resin plate (col. 8, ll. 46-48 "applied to top and bottom surfaces" and Abs., II. 4-5 and 17).

The Examiner concedes that:

Farnam (704) fails to teach of a composition comprising an acrylic polymer having at least one alkenyl group capable of undergoing hydrosilylation reaction by copolymerization of an acrylic acid ester monomer and a compound as a second monomer represented by the general formula:



wherein R1 is a hydrogen atom or a methyl group and R4 is an alkyl group of C1-C20 which may have at least one ether bond;
a hydrosilyl group-containing compound; and
a hydrosilylation catalyst as essential components.

Accordingly, the Examiner has relied upon Kusakabe et al as teaching:

... a composition comprising an acrylic polymer having at least one alkenyl group

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capable of undergoing hydrosilylation reaction (col. 11, II. 43-45), at least one alkenyl group capable of undergoing hydrosilylation reaction by copolymerization of an acrylic acid ester monomer and a compound as a second monomer represented by the general formula:



wherein R1 is a hydrogen atom or a methyl group R4 is an alkyl group of C1-C20 which may have at least one ether bond (See col. 5, I. 59 to col. 6, I. 33 wherein Applicant's left R1 is equivalent to Kusakabe's R3 and right R1 which is equivalent to Kusakabe's R6 which are a hydrogen or methyl group and explained in col. 5, II. 63-67 and see col. 8, II. 53-64 wherein Applicant's R4 is equivalent to Kusakabe's R13 and R14 when R13 has at least one ether bond and R14 is an alkyl group, thus an alkyl group of C1-C20);

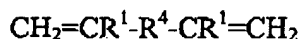
wherein the second monomer is one of 1,5-hexadiene, 1,7-octadiene and 1,9-decadiene (col. 12, II. 56-60);

a hydrosilyl group-containing compound (col. 11, I. 46) and a hydrosilylation catalyst as essential components (col. 14, II. 49-50) for the purpose of providing good depth curability without foaming (col. 14, II. 47-50)).

In combining the teachings of Farnam and Kusakabe et al. the Examiner takes the position that:

...it would have been obvious to one having ordinary skill in the art at the time applicants' invention was made to substitute the composition of Farnam (704) with the well known acrylic polymer as described above in order to provide gaskets with good depth curability without foaming as taught by Kusakabe ('014).

In the Office Action the Examiner states that the formula (2) in column 5 of Kusakabe is equivalent to the formula:



recited in applicants' independent claim 1.

However, at column 5, line 67 Kusakabe teaches that: "R4 is -C(O)O-, or o-, m-, p-phenylene."

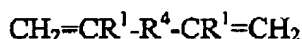
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In contrast to Kusakabe, the compound having two alkenyl groups used in the present invention does not include -C(O)O-, or o-, m-, p-phenylene.

The Examiner further states that the formula (4) in column 8 of Kusakabe is equivalent to the formula:



recited in applicants' independent claim 1.

However, at column 8, lines 43-64 Kusakabe teaches that the compound of formula (4) is used for "Conversion of the halogen atom into an alkenyl group-containing substituent [which] gives a (meth)acrylic polymer having alkenyl groups at both ends."

In contrast to Kusakabe, in the present invention the $\text{CH}_2=\text{CR}^1-\text{R}^4-\text{CR}^1=\text{CH}_2$ is used rather than the compound of formula (4) of Kusakabe.

A careful review of Kusakabe reveals that composition of Kusakabe is not at all similar to that recited in applicants' independent claim 1.

Therefore, substituting the composition of Kusakabe into Farnam does not result in applicants' claimed invention and certainly does not render applicants' claimed invention obvious.

The Examiner concedes that Farnam "fails to expressly disclose wherein the second monomer is one of 1,5-hexadiene, 1,7-octadiene and 1,9-decadiene."

To cure this defect the Examiner has relied upon Kusakabe as teaching:

...the second monomer is one of 1,5-hexadiene, 1,7-octadiene and 1,9-decadiene (col. 12, II. 56-60) for the purpose of providing good depth curability without foaming (col. 14, II. 47-50).

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The Examiner has overlooked or failed to consider that in Kusakabe the 1,5-hexadiene, 1,7-octadiene and 1,9-decadiene are used as ingredients for the component (B) which is a polyvalent hydrosilicon compound.

In applicants' invention the 1,5-hexadiene, 1,7-octadiene and 1,9-decadiene are the second monomer which is represented by the formula: $\text{CH}_2=\text{CR}^1-\text{R}^4-\text{CR}^1=\text{CH}_2$

Accordingly, the Examiner's interpretation and reliance upon Kusakabe are in error.

The Examiner has relied upon DeCato et al. as teaching that a cured product layer's surface hardness can vary depending on the additives.

The Examiner has relied upon Kawamura as teaching resins that have a softening point of 100 °C or more for the purpose of providing a gasket to undergo a very slow cure for having acceptable storage stability.

The Examiner's further reliance upon DeCato et al and Kawamura do not address or overcome the distinctions between the present invention and Kusakabe et al. noted above or that the fact that the combination of Farnam and Kusakabe et al. do not render the pending independent claims obvious.

Based upon the above distinctions between the prior art relied upon by the Examiner and the present invention, and the overall teachings of prior art, properly considered as a whole, it is respectfully submitted that the Examiner cannot rely upon the prior art as required under 35 U.S.C. §103 to establish a *prima facie* case of obviousness of applicants' claimed invention

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It is, therefore, submitted that any reliance upon prior art would be improper inasmuch as the prior art does not remotely anticipate, teach, suggest or render obvious the present invention.

It is submitted that the claims, as now amended, and the discussion contained herein clearly show that the claimed invention is novel and neither anticipated nor obvious over the teachings of the prior art and the outstanding rejections of the claims should hence be withdrawn.

Therefore, reconsideration and withdrawal of the outstanding rejections of the claims and an early allowance of the claims is believed to be in order.

It is believed that the above represents a complete response to the Official Action and reconsideration is requested.

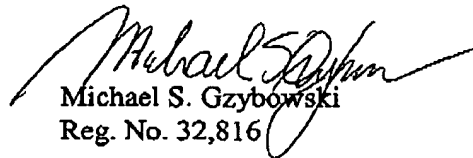
If upon consideration of the above, the Examiner should feel that there remain outstanding issues in the present application that could be resolved, the Examiner is invited to contact applicant's patent counsel at the telephone number given below to discuss such issues.

To the extent necessary, a petition for an extension of time under 37 CFR §1.136 is hereby made. Please charge the fees due in connection with the filing of this paper, including extension of

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time fees, to Deposit Account No. 12-2136 and please credit any excess fees to such deposit account.

Respectfully submitted,



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